Message

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Sent: 3/1/2021 7:41:06 PM
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Subject: RE: Aerojet Rocketdyne - BERA SAP - Wet Weather Sampling Discussion
Attachments: EPA comments on Wet Weather SAP and AR Responses.docx; 20210301_IOU_BERA_Wet Weather SAP_Short Version for Agencies Rev1.docx; 20210301_IOU_BERA_Wet Weather SAP_Short Version for Agencies Rev1 .pdf

Hi Everyone – Attached are the updated responses to Agency comments (in RLSO), the word version of the abbreviated Wet Weather SAP (in RLSO), and a compiled clean version of the Wet Weather SAP in .pdf. We intend on beginning the biological surveys later this week and continue as long as necessary to conclude whether sediment is present or not in the low lying areas planned for sediment sampling. We also plan on scheduling surface water sampling at Area 39. Please let me know if you would like to coordinate split sampling.

As stated previously, we will continue to work on responding to the remaining comments and, once approved, we will prepare a final BERA SAP, including the details in this wet weather sampling plan.

Thanks again for your expedited reviews. Please let me know if you have questions. Chris

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From: Fennessy, Christopher
Sent: Thursday, February 25, 2021 3:05 PM
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Subject: Aerojet Rocketdyne - BERA SAP - Wet Weather Sampling Discussion

Hi Everyone – Thanks again for participating in our call on February 23, 2021. Following the call, AR and its subcontractors (M. Weisberg, S. Kraemer, and B. Sample) discussed a variety of issues and would like to propose the following related to planned wet weather sediment sampling (and associated toxicity/bioavailability tests) at locations within Lines 1, 3, 4 and the Central Disposal Area (CDA) (currently shown on SAP Figures 2-8 and 2-9).

Our recommended alternative approach would be to conduct a few field surveys during the next several weeks to determine if current conditions are likely to be supportive of benthic invertebrate and/or amphibian populations at the proposed sediment locations. This step is needed because the historical "hotspot" COPEC locations identified in the 2016 draft SAP (shown in Figures 2-8 and 2-9) were based on non-wet weather collection events, where samples were collected proximate to suspected historical discharge areas (e.g., near outfalls, drains, etc. adjacent to buildings were washout/cleanout activities would have occurred during facility operations or in low-lying areas adjacent to known contamination [e.g., open burning at CDA, Fig. 2-9]). These samples (identified at the time as being 'sediment') were often collected from slicken areas (i.e., low-lying furrows with silt and clay between cobble dredge piles/rows associated with historical hydraulic gold dredging activities [from early 1900s to approximately 1960]). Even though these samples were labeled as sediment (SD) on field collection logs, this designation was not a true indication of actual sediment being present. The SD designation was based on suspected sediment being present during the wet weather season.

Now that actual sediment sampling and associated bioassay testing is imminent, a closer evaluation of these proposed locations is warranted. Given the highly seasonal precipitation and very ephemeral nature of most surface water at the site, it is possible that viable aquatic and/or amphibian habitat is not actually present in these areas. Field surveys (following rain events) are proposed, to evaluate actual conditions, including presence of standing water, water depth, plant and/or amphibian species present, and length of time standing water and/or wet sediments persists. Detailed photographs and field notes would be collected. In addition, areas downgradient of the proposed locations would also be evaluated, as some COPECs may have migrated to wetter areas, although with likely lower COPEC concentrations.

Rebel Hill Ditch (south and east of Lines 1,3, and 4) surface water sampling (and associated toxicity/bioavailability tests) is no longer planned due to the fact that the historical concentrations of the one final COPEC in surface water for this area (barium) had a maximum measured concentration of 38 ug/L (out of the two samples with detected results). This maximum concentration is now below the current chronic screening level of 220 ug/L (Table 1a in EPA Region 9-recommended *Region 4 ERA Supplemental Guidance*, March 2018).

Surface water sampling (and associated toxicity/bioavailability tests) are still planned for Area 39, as numerous metals and perchlorate were final COPECs at this area, and this area is expected to remain wet/flooded well into late spring. Due to the persistence of surface water at Area 39, AR intends on collecting samples for chemical analysis during the first event to determine if COPECs remain and, if COPECs do remain, revisiting the surface water bodies for collection of samples for chemical and toxicological analyses. Note: No final COPECs were identified for sediment at Area 39.

Let me know if you have questions. Thanks, Chris

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